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LINCOLN, NEBRASKA

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CLINICAL FACILITIES
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DR. GEO. H. BICKNELL

Associate Professor of Ophthalmology and Otology
University of Nebraska College of Medicine
Died November 28, 1908

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*Pulsus Alternans*¹

BY H. J. LEHNHOFF, LINCOLN, NEBRASKA

Every practitioner who is at all interested in the scientific side of medicine, continually meets with heart cases in which the diagnosis is but meagerly made. Few of us attempt to carry our analysis further than a limited study of the pathology of endocardium and pericardium, with the consequent symptoms and signs. Entirely too many of us have masked our ignorance of myocardial pathology by classifying all forms of irregularity of heart action into one group, and assuming the cause of their existence to be some peculiarity of action of the nervous system. Too many irregular hearts are classified as "nervous hearts."

During the last two or three years, a marked interest has been taken in the conditions of cardiac muscle, and the relation of these conditions to clinical cardiac manifestations. The intense interest taken in the auricle-ventricular muscular band commanded all of our attention for awhile. However, peculiar phenomena of cardiac rhythm have been explained on the basis of abnormal conditions of the cardiac muscle other than that of the bundle of His, and it is one of these peculiar heart rhythms

¹Delivered before the Pathology Club of the University of Nebraska College of Medicine, October 29, 1908.

that I wish to present here, together with its partial, incomplete explanation. While other conditions may be taken into consideration the real object of this discussion is one, namely, *that we have a condition which can be diagnosed as one of myocardial pathology.*

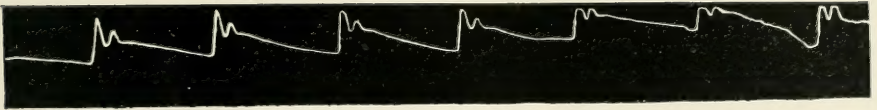
There is a certain form of pulse tracing, characterized by an alternating height of contraction, or *pulsus alternans*. This form is not identical with the condition known as *pulsus bigeminus*, but the distinction is by no means clear. Three forms of *pulsus alternans* are noted: In the first the distance between the small and the preceding large contraction is greater than the distance between the small and the following large contraction. In the second the distance between the weak and the preceding large contraction is less than the distance between the weak and the following strong contraction. In the third form, the distances between the contractions, whether weak or strong, are equal.

It is well known that heart muscle has certain physiological characteristics which are more or less common to all muscular tissue, altho not to the same degree in all cases. These characteristics are the following: 1, excitability; 2, contractility; 3, rhythmicity; 4, conductivity; 5, tonicity.

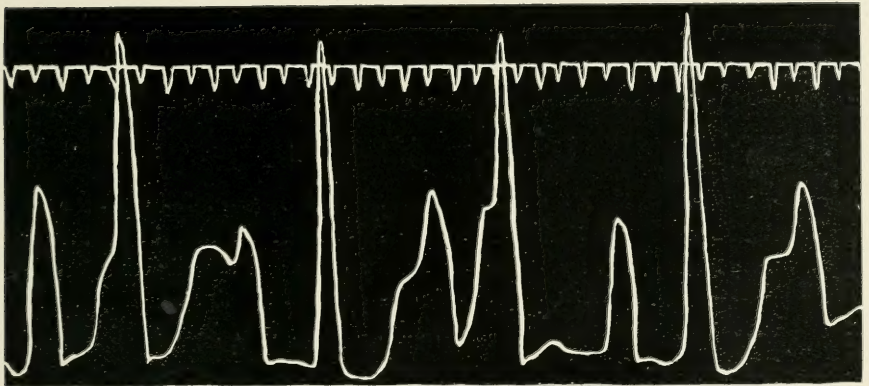
While it is true that muscle tissue of the other organs may have a characteristic rhythmicity and tonicity, the latter are not nearly so marked as they are in the muscle of the heart. It is also a well-known fact that there are three characteristics which are peculiar to the heart muscle alone;—1, the so-called “All or none” law,—i. e., the magnitude of the contraction of the heart muscle is independent of the strength of the stimulus. When the heart muscle contracts, it contracts to its fullest extent; 2, the heart muscle has a long refractory period; 3, the heart muscle can not be tetanized.

In observing the curve of a *pulsus alternans*, it is fair to suppose that the systolic portion of the higher apex is normal, and not that of the lower apex. Normally the heart muscle contracts to its fullest extent, and it can not contract more than that. That part of the curve representing the weak systole then records a contraction of the ventricle which took place when the latter was in a condition in which it could not contract

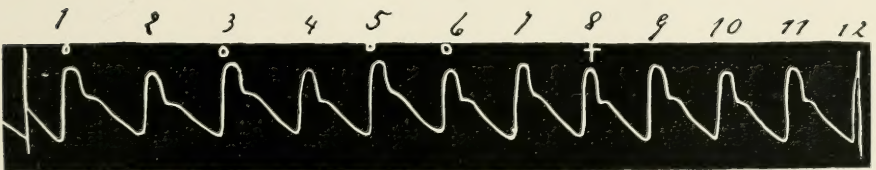
PLATE I.



Type 1



Type 2



Type 3

to its fullest normal strength. It is this portion of the curve that must be explained. At the first glance at these tracings, (See Plate 1) one might be led to think, particularly in type one and two, that the smaller contraction might be due to a diminished stimulus. When we recall the "all or none" law of the cardiac muscle, we must give up this idea. According to this well-known law, the magnitude of the contraction of the cardiac muscle, unlike that of a skeletal muscle, does not depend upon the magnitude of the stimulus. The heart muscle refuses to contract until the stimulus reaches a certain magnitude, and when it does contract, it contracts to the maximum extent.

It is true that the inhibitory influence of the vagus, coming thru the ganglion cells of the heart muscle, has some influence upon the magnitude of the contraction, but so far it has been impossible, and in all probability it will continue to be impossible to produce such a marked contrast as we have in the systoles in many cases of pulsus alternans. The sympathetic system influences the rate and strength of the heart-beat in accordance with the demand for more or less blood in different localities, but a rate and rythm such as we find in pulsus alternans would not be called into effect by any such demand. What is more, the rate and rythm which are characteristic in pulsus alternans have no influence upon the supply of blood or blood pressure in any particular locality. The rate of heart-beat is likewise accompanied by changes in the magnitude of the ventricular systoles; but each systole is affected equally, and there is no such condition of influence affecting alternating systoles absolutely. The changes in blood pressure, either general or local, also act reflexly upon the magnitude or the rate of the heart-beat. But in this condition also there is no tendency to influence the blood pressure by affecting alternating systoles, and vice versa, such alternating systoles would not meet the demand occasioned by any extraordinary condition of blood pressure.

In type 1, the small contraction would seem to come too soon. The cause of the initiation of the contraction at this time can not be explained. The magnitude of the contraction can be explained upon the ground that having followed too soon after the large contraction, the muscle had not fully recovered and therefore was not able to contract as strongly as it normally

does. It is my belief that the type is not a true *pulsus alternans*, but should be classified as a *pulsus bigeminus*.

In type 2, the small contraction occurs nearer the following large contraction than the preceding large contraction. Remembering the "all or none" law, the muscle completely spent itself during the small contraction as well as during the large contraction; consequently if there is a greater space of time following the large contraction than the small before the contraction begins, the muscle should have been in a better condition at the beginning of the small than at the beginning of the large contraction. This type can be explained upon the grounds of a faulty conductivity of the muscle. The wave of contraction, passing from the great veins is interrupted or retarded in its course over the auricles, or from the auricle to the ventricle, or in the ventricle, and therefore the small contraction begins too late. Or if the wave of contraction be not only retarded in its progress to the ventricle, but should also fail to reach a part of it, we would have a condition of retarded initiation of contraction, and also a small contraction such as is represented in type 2.

In type 3, the contractions are uniform as regards the periods of time. The distance between a weak and the following strong contraction is equal to the distance between the strong and the following weak contraction. Then the weakness of every other contraction, in this type at least, is not due to the fact that it begins before the muscle has fully recovered, as might be possible in type 1, for in type 3 the distances between all contractions are equal. For exactly the same reason, it can not be stated with certainty that this type is due to the decrease in conductivity of the muscular fibers, for so far as can be ascertained, the wave of contraction passes from the great veins over the muscle of the ventricle in the same period of time in both weak and strong contractions.

Can it be possible that at the time of the beginning of the weak contraction the muscle has not recovered from the preceding strong contraction? This is not probable, for when the myocardium is in its refractory state, not only is its power to contract, but also its power of excitability and conductivity is lost. Then, remembering the "all or none" rule, it is more probable that if the muscle contracts at all, it will contract

with as much force at the time of the beginning of the weak systole as it would at the time of the beginning of the strong systole.

What then is the probable condition underlying the phenomena in type 3? The fault does not lie with the entire myocardium of the ventricle, but with a part of it. For some pathological reason, a part of the muscle of the ventricle does not recover in time to contract during every cardiac cycle. It does recover by the time the second cycle passes over the heart, consequently the alternating weak and strong systoles continue. While at present we are unable to explain fully the other types of pulsus alternans upon this basis, it is probable that they are all related in etiologi- cal factors.

Approaching the subject from a deductive standpoint, we are justified in making the following conclusions:

1. The phenomena of pulsus alternans is not due to any extraneous nerve influence.
2. It is not due to any pathological condition of the pericardium.
3. It is not due to any pathological condition of the endocardium alone.
4. Consequently it must be occasioned by some pathological condition within the myocardium.

DESCRIPTION OF PLATE

Type 1 represents a radial pulse tracing. Taken from the *Muenchener Medizinische Wochenschrift*, 1908, 55, 14, p. 720.

Type 2 represents a tracing, taken by the author, of the pulse in the neck of a patient with pulsus alternans.

Type 3 represents a pulse tracing taken from the *Muenchener Medizinische Wochenschrift*, 1908, 55, 27, p. 1419.

Journeys to the Homes of Great Diseases

BY H. WINNETT ORR, LINCOLN, NEBRASKA

I. BUBONIC PLAGUE¹

Plague has played an important part in the history of the world. So virulent have some of the epidemics been that besieging armies have been destroyed; cities attacked have been depopulated. Whole counties have been reduced to a condition similar to that of Austria when in 1681 the stricken people inscribed upon the statue of their patron saint "Lord, grant that we do not perish."

One historical writer has gone so far as to assert that the Hellenic people as a race were destroyed by plague and that their country was repopulated by Slavs and Albanians.

Authorities are not agreed on the antiquity of plague. The exact time when it made its appearance can not be decided. There are good reasons, however, for believing that some of the historical epidemics were bubonic plague and nothing else. Particularly when disease occurred in human beings concurrently with epidemic disease in animals may plague be suspected to have been the disease.

The excellent historical accounts of Pigott⁶ and Novy⁵ have been drawn upon freely for the following account and the other writers referred to in the bibliography have been quoted briefly or at length.

Epidemics referred to in the old Testament, Exodus chapter IX, Deuteronomy chapter XXVIII and I Samuel chapter V, have all been spoken of as plague. By some the latter at least has been thought to refer to venereal disease. The epidemic which swept the Grecian army before Troy has been thought to have been bubonic plague.

One of the earliest descriptions considered to be authentic is that contained in Thucydides' History of the Peloponnesian War.

¹A paper read before the Pathological club of the University of Nebraska College of Medicine, January 14, 1909.

"This epidemic broke out in the year 430 B. C. in Athens during the second invasion of Attica by the Peloponnesians. The population of the city and suburb, the Piraeus, at that time can not be ascertained. Certain it is, however, that it was very much greater than usual, because the panic occasioned by the advance of the enemy had driven the country people into the city.

"Athens was a collection of squalid huts and filthy streets, overshadowed by magnificent public buildings; thus satisfying the taste of the Greek, who lived out of doors and cared little for domestic comforts.

"Into this filthy city, during the rising heats of the spring flocked the terrified people from the country. Every vacant piece of ground, not even excepting the sacred inclosures of the temples, was whitened with the tents of the fugitives. The towers were occupied, and the increasing throngs filled up with their temporary huts the spaces between the long walls, and even placed casks in the recesses to accommodate those who could find no other shelter." (Pigott)

In this difficult situation Pericles organized an expedition to harass the Peloponnesian coast. When he returned to Athens his family had been swept away by the disease and soon afterwards he himself fell a victim to the pestilence.

An epidemic devastated Rome about the middle of the second century known as the Antonine pestilence or the plague of Galen. This plague was supposed to have been brought by the returning Roman legions from Seleucia. Some writers suppose the disease to have been partly small pox but others fail to recognize any of the characteristic symptoms in the descriptions of ancient writers.

A century later the so-called plague of Saint Cyprian may have been partly bubonic plague since it prevailed during the fall and early winter months and as reported must have been highly contagious.

The great plague of Justinian which broke out in the year 542 appeared first in Egypt, and from thence it spread east and west thruout the known world. It persisted for more than half a century. So unknown was the plague in Europe at that time that the physicians of Constantinople considered it a new disease.

Procopius a physician who was an eye-witness of the plague at Constantinople, states that the daily mortality in that city was at times over 10,000.

The pandemic of Justinian resulted in the distribution of the plague for the first time thruout the length and breadth of known Europe. From that time on the early chroniclers make repeated mention of devastating plagues consequent upon the miseries of war and famine. The descriptions of these pestilences are, as a rule, insufficient to identify them with the bubonic plague. Typhus, scurvy, small pox and other diseases undoubtedly alternated in the work of destruction. Of the scores of epidemics thus recorded during the eight centuries following this first visitation few, indeed, can be indentified to a certainty with the bubonic plague, and yet there can be no doubt but that this disease occupied no second rank during the dreary darkness of the middle ages. This era in history may be said to have been ushered in by the Justinian plague, and it was closed by an even more disastrous outbreak of the same disease. All the ravages and slaughter consequent upon the great historic battles, when taken together, pale into insignificance on comparison with that dread visitation of the fourteenth century, the "black plague."

"It is noteworthy that this great historic epidemic did not originate in Egypt, as did many of its predecessors. Without exception the contemporaneous writers ascribe its origin to Cathay, or the China of today. This fact is of interest when it is borne in mind that at the present time we know of the existence of two endemic foci in China besides that of Gurhwal in India, of Beni Cheir in Arabia and of Uganda and Kisiba in Africa. Whatever may have been its source, the fact is that it advanced from the Orient along the three principal routes of travel. One of these led from the Persian Gulf thru Bassorah and Bagdad along the Euphrates across Arabia to Egypt and Northern Africa. Another route passed from India thru Afghanistan, and skirting the southern borders of the Caspian and Black Seas, eventually reached Asia Minor. A third route from Turkestan and China led around the northern shore of the Caspian Sea to Crimea, and thence to Constantinople. It was along these several routes that the plague advanced and spread over most of Western Asia and Northern Africa." (Novy)

Constantinople became infected in 1347 and within four years the disease covered Europe. The estimates of the total mortality of this epidemic are given as high as 200,000,000, the exact number is, of course, impossible to ascertain.

London had a mortality in 1349 of 20,000 out of a population of 45,000.

The following description of the disease as it appeared in Florence in 1347 is quoted from Boccaccio.

"There appeared certain tumors in the groin or under the arm-pits, some as big as a small apple, others as an egg; and afterward purple spots in most parts of the body; in some cases large but few in number, in others less and more numerous—both sorts the usual messengers of death. To the cure of this malady neither medical knowledge nor the power of drugs were of any effect; whether because the disease was in its own nature mortal, or that the physicians could form no idea of the cause, nor consequently ground a true method of cure; whichever was the reason few or none escaped, but they generally died the third day from the appearance of the symptoms, without a fever or other bad circumstance attending. And the disease, by being communicated from the sick to the well, seemed daily to get ahead, and to rage the more, as fire will do by laying on fresh combustibles. Nor was it given only by conversing with, or coming near the sick, but even by touching their clothes, or anything that they had before touched. Anything belonging to the infected, if touched by any other creature, would certainly infect, and even kill that creature in a short space of time. One instance of this kind I took particular notice of, namely, that the rags of a poor man, just dead, being thrown into the street, and two hogs coming by at the same time, and rooting among them, and shaking them about in their mouths, in less than an hour turned around and died on the spot."

The following vivid description also gives some idea of the extent of the disease and the condition of the people at the time.

"There is a still darker page in this gloomy history. The absurd story that the wells were poisoned gained general credence, and with this crime the unfortunate Jews were charged. In the existing state of feeling, proofs were easily had to satisfy the sanguinary rabble of their guilt. Thousands of these un-

happy people expiated their imaginary crime by the most cruel death. Torture was applied to extort confession, and the agonized sufferer assented to every thing which his tormentor suggested. The fury of the populace, always blind, knew no bounds, and it was fanned by the nobles who had borrowed money from the Jews which they did not wish to repay, and by the monks who had been underbid by them. Their protectors were few and comparatively feeble, consisting chiefly of the Vogts or bailiffs placed over them by the Emperor, in consideration of a heavy tribute paid into the imperial coffers. Against the rage of all classes who had bound themselves by oath to exterminate the Jews by fire and sword, their protestations were of little avail; and indeed in some instances they were forced to unite with the people and subscribe to the same bloody oath. The wells were shut up, the buckets taken away, and water obtained from ponds and rivers; and then this very precautionary measure, occasioned by the fears of the people, was cited as an evidence against the unhappy Hebrews. In Basle and Freiburg all the Jews were seized, enclosed in a wooden building constructed for the purpose, and burned alive. In Strasburg, by decree of a diet held at Bennefeeld, in Alsace, eighteen hundred were burned. 'At Mayence', says an old chronicler, 'they were roasted in such a fashion, that in St. Quentin's Church tower, a fine bell and the lead around the windows were melted. Elsewhere they threw them into the wells they had poisoned, drowned or stabbed them or hurled them from the tops of houses, and in all imaginable ways slew and executed them.' At Eslingen they anticipated the cruelty of their persecutors, and burnt themselves in their own synagogue. Some few were spared by the wretches who disgraced the name of Christians, and these were forced to be baptized. But, as fanaticism engenders religious rancor, the Jews hated baptism worse than death, and even mothers were known to throw their tender infants into the fire to save them from the detested symbol of a creed which for them was written in letters of blood." (Hecker)

During the sixteenth century the plague was not so extended or virulent. In 1575 there was an outbreak in Italy due to fresh importation from the east. In 1579 70,000 died in Vienna. During the seventeenth century following the famine the disease

prevailed in Rome. It was said that 17,000 died in Moscow. The disease spread to Western Europe and London in 1603 had 33,000 deaths.

A classic in the literature of the plague is DeFoe's description of the plague year in London 1665. The disease appeared to have been imported from Holland. London had a population of nearly half a million and had 70,000 deaths from plague. The weekly mortality from the disease ran as high as 7,000 and DeFoe states that 3,000 were buried in a single night.

London had had an epidemic of plague every fifteen years on the average since 1348 but the epidemic of 1665 was the last. It was supposed by some that this was a result of the great fire of 1666, but as a matter of fact cases were reported in London as late as 1679. Other explanations offered were the growth of the practice of burial in coffins and that since that time there has been an absence of famine and a cessation of wars and extreme poverty. The introduction of modern methods of hygiene and sanitation must also, of course, be taken into consideration.

In 1675 the disease was spread over northern Africa, extending to Turkey and up into southern Europe. There were from 70,000 to 100,000 deaths in Vienna in 1679. From Vienna the plague reached Prague where in 1681 it caused 83,000 deaths.

In 1720 plague was again brought to Marseilles by a merchant ship from Syria. As was usually the case the character of the infection was not recognized until it had gained a foothold in the city. During August the mortality rose to 1,000 per day. Conditions were as bad as in London in 1665 and during the fifteen months of the duration of the epidemic 40,000 died.

The disease spread to neighboring smaller cities, producing in all probably 150,000 deaths, from 40% to 50% of the entire population of the territory invaded.

"Toward the middle of the century the plague asserted itself in the Danubian provinces, the constant battle ground between the Turks and Russians and Austrians. In 1738 it not only prevailed in Russia but also invaded Hungary. Of more importance than this occurrence is the outbreak of the plague in 1743 in Sicily. The last epidemic of plague had occurred in Messina in 1624. After a lapse of a hundred and twenty years it reappeared with terrible results. In Messina, as in Marseilles

and in London, the first cases were not recognized as plague cases and, as a result, the infection spread until, like a veritable explosion, the disease developed all over the city. The plague, with its attendant misery of lack of food, and even of water, was in vain combated by religious processions. The plague corpses were in heaps in the streets, as in Marseilles, and cremation was resorted to in order to effect their removal. That year 30,000 died of plague in the city of Messina. With the exception of a slight epidemic at Noja in 1815, this outbreak in Messina in 1743 was the last one to appear in Italy." (Novy)

Plague has nearly always been present in some part of China. In 1894 the disease which had been prevalent in Canton spread to Hong Kong. It was during this epidemic that the researches of Kitasato resulted in the discovery of the plague bacillus. From Hong Kong the disease was spread to Formosa and about the same time to Bombay. Bombay was crowded with people and there was a famine in India. It is probable that plague was well established at the time when it was first discovered. In spite of strict measures adopted at once weekly deaths from plague soon rose to nearly 2,000. It was said that 300,000 people left Bombay seeking refuge in flight. The result was, of course, that the disease was widely distributed thruout western India. It was said that in the Presidency of Bombay in less than three years there were 200,000 cases with 164,000 deaths. This favored the distribution of the disease elsewhere, also, and brought especially to western coast of the United States a realization of our own danger from this disease.

During five years at this time more than three million people perished of this disease in India. The sanitary and therapeutic measures employed to control the death rate in India and to prevent the spread of the disease to other countries are a part of present day knowledge and do not require relation here. The rôle of rats and fleas in the dissemination of the infective agent must be left to discussion elsewhere. The enormous influence of this disease, however, on the welfare of the people of the past must certainly impress us with the fact that neither exertion nor expenditure must be spared to insure our country against invasion by so destructive a pestilence.

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*Counter Tendencies in Medical Instruction*¹

BY W. A. WILLARD, LINCOLN, NEBRASKA

In the teaching of special scientific subjects the pedagogical side is not often taken into account. We have a feeling that that will adjust itself if we but possess a fair degree of common sense coupled with industry and a knowledge of our subject. We even hear it stated, in effect, that common sense is not strictly necessary if we have instead an overwhelming sense of the importance of our respective subjects and the authority to lock the students in the laboratory with us for so many hours a week. It rests in the nature of things that they will learn and the longer they remain incarcerated, the more they will learn, or, as more often expressed, all a teacher needs is his subject and a love for it and he will intuitively, in the face of any and all obstacles, impart it to any student he may have about him.

The only excuse for this paper is the thought that this solution is perhaps too simple and after all the problem does not rest wholly with the personality of the instructor. That, without encroaching on the kindergarten, there are common fundamentals worth considering which are peculiarly related to the work we have in hand.

As teachers we labor under certain common conditions. Almost without exception ours are laboratory courses, while presenting special fields they are elementary courses requiring a careful selection of material, the same classes of students come to us and with the same ultimate object. Over against these common facts there is one important difference. Each subject has its own peculiar place. Our courses come in a certain sequence and each one should presuppose the training of the previous ones and be planned with definite knowledge of the content of these other courses. We have to deal with students who move from subject to subject with a constantly increasing equipment in knowledge and training, and it might be added that this is as much an equipment for the instructor in his

¹Read before the Pathological Club of the University of Nebraska College of Medicine, January 28, 1909.

effort toward efficient teaching as for the student and it should not be lightly taken from him. It seems to me there is enough common ground here for profitable discussion and sufficient excuse for a friendly but critical interest of one man in the work of the others. In fact I believe the exercise of such a right is essential to our growth.

We can associate with these three sets of conditions most of the difficulties and errors of our work.

In laboratory courses the factors of personal and individual instruction as against class teaching, the balance of laboratory quiz and lecture work, practical laboratory tests, etc., are all details of teaching which must necessarily vary with different subjects and different instructors, but which nevertheless, I believe, to be worthy of study and comparison among ourselves, with the view to greater efficiency.

The second fact accounts for our insatiable thirst for hours. Each one sees his subject stretching out into space, a field broad and inviting—to him. The students, however, arrive on a fast train and like Cook's tourists they have paid their money to do a certain route in a given time. It requires so much of their attention to see that they are not left behind that they have little chance to look about them. What they get in any one subject, like a railroad lunch, must be carefully selected with reference to its portableness and its rapid and easy digestibility amid the distractions of other things. Even with ideal conditions this selection of a little from the great mass of subject matter that must be ignored is a duty involving more thought than any other phase of our teaching, carrying with it the assumption that we keep informed of new work so we really have our field before us for selection.

The third condition, that we are dealing with the same personal factors but with changing mental equipment brings into consideration many things more or less complex. It involves more than the correlation of instruction—it includes the correlation of personal relationships—the moral influence if you will. The professional ideal, scientific honesty, by whatever name you may call it, should be a matter of gradual but consistent growth, not inhibited by trivial differences among instructors freely expressed to students. Adverse criticism of one instructor by another, however fair, has no place in our relation to students. There

are certain scientific and professional ideals which in their essentials are held alike by all. The emphasis should be placed on these and in some way our teaching should be carried on that students may feel this and put the true scientific spirit into their work while in college and carry it into their professional life afterward. This of course is a platitude but one nevertheless worthy of occasionally putting to the test of experience and measuring against the results we are actually getting.

The systematic elaboration of this hasty outline presents a more formidable task than will be undertaken in this paper which is intended to suggest further thought and discussion of the subject.

Of the many questions that might be raised the most important in my opinion is what relative emphasis to put upon the mere acquisition of facts and the training to use them. The two things can not be wholly separated in practice but for purposes of discussion they may be. Practically it resolves itself into the question "How much ground shall be covered?"

I believe tradition influences us too much in this matter. The quiz compend and all the false notions of teaching involved in its use are still present in spirit if not literally so. We recognize the need for the training for accuracy, for caution necessitating the duplication and verification of single observations, for the power to express and transmit these observations, but these necessities must ever take second place to what is considered the greater one of "getting over the subject" and unfortunately the final test to which the student is submitted is generally whether the facts have been acquired and not whether he knows how to use them. It matters little what we attempt to inspire in our students during the year if we are inconsistent at the end.

I realize there are wide differences in courses in this respect and the student goes more and more into the technical and specific as he progresses, but for the two years of the medical course represented here, I believe my contention is true that the training side is often neglected. We should not forget that these courses are accepted for academic credit not because they are inherently of cultural value, but because in the hands of well educated instructors they may be given that value. We should not neglect our function in this respect.

This fact-cramming usurps the process of learning in the most aggravated form in the case of slow or negligent students who are continually behind in their work or in the case of those who may have been unwisely permitted to jumble their schedules.

Doubtless we have all been amused by the spectacle of the man who has completed his college course except for a semester of entrance Latin. He hires a tutor, swallows the dose, and carries off his diploma. We see the thing repeated in less culpable form every time a man mixes first and second year subjects, and we may as well be honest and admit that essentially the same pedagogical crime is committed whenever students, for whatever cause, are allowed to do mental piece-work. We see it every Saturday afternoon in our laboratories when delinquent students are filling in the gaps of a deficient note book. They may be too slow to do as many "tasks" in the given time as the others, so they merely make their observations and reserve the quiet of a Saturday afternoon a week later to record them.

Another and perhaps the main reason for this illogical method of study is the pressure under which even the best students are working. This pressure is often artificial, emanating from the instructor in the ultimatum, "You must get this work done somehow or you will not pass the course." This method applied arbitrarily is particularly bad for it breeds more of its kind. The instructor who decides he will lighten his course so as to give his students a little time for the novel exercise of thinking soon finds that they are doing their thinking, if at all, in the other man's laboratory. There is nothing for him to do, but to demand enough to take his share of the student's time.

One time I was witness of a mild hazing episode which suggests itself by way of illustration. A freshman had been taken to the foot of the college hill where some large water mains lay in readiness to be rolled into the ditch prepared for them. There were spaces of varying width between the ends of the successive segments. The upper classmen, armed with small sticks and switches arranged themselves in readiness, at these gaps. Freshie was taken to one end of the series and told to make a run of it and there was nothing for him to do but duck his head and obey orders. His captors landed on him whenever he changed holes. They were not particular where they hit him so long as they made their presence felt and sometimes in their eagerness they

missed him altogether. I have sometimes wondered if a poorly prepared medical student does not feel like that freshman, who, I might add, was then compelled to climb a telephone pole and sing the class songs eulogizing his persecutors.

The implication in this analogy should not be taken so seriously as to be construed a criticism of the spirit that pervades our work. It is only suggestive of a tendency toward one evil while we are trying to correct another in our efforts to set higher standards and add needed preparation. There must be pressure. The average man works better under it and some would not work at all without it, and I do not wish to minimize the importance of acquiring a fund of accurate information but this does not of itself insure *habits* of accuracy which are more important.

Efficient teaching is obviously that sort of treatment of the student that contributes most toward his ultimate object. In this case we are dealing with the preparation for a scientific profession but one which is unique in its human relationship. What a physician ought to know is a field that is changing and enlarging so rapidly that the man who enters it must have the power to grow with it. The training for such power should receive systematic consideration. This end could profitably be furthered thru some relief from the pressure of mere fact getting. A more careful correlation of the subject matter of one course with another would attain this in two ways. It would be a clearing house method for needless and unconscious duplication, thus giving more time and it would so associate the teaching that the student would more clearly see the relation of one subject to another and bring into operation that faculty we are seeking to stimulate.

*The Emmanuel Movement*¹

BY A. E. GUENTHER, LINCOLN, NEBRASKA

No recent movement of general popular interest is so absorbing or so important to medical men as the one which, over two years ago, had its birth in the Emmanuel Episcopal church in Boston. In this large and most prosperous Episcopal church of the city there was begun, by the rector, the Rev. Dr. Elwood Worcester and the assistant rector, the Rev. Dr. Samuel McComb, an agitation which has made its way over the country to a surprising extent. The official book of the Emmanuel Movement, *Religion and Medicine*, did not leave the press until May 1908. During the following four months seven editions of the book were issued and at the present time in different parts of the country at least forty Protestant churches, not to consider hundreds of Christian Science churches whose inspiration has been derived from other sources, are holding and conducting religious services, clinical in character, of fundamentally the same nature as those instituted at the Emmanuel church. The particular feature of these services attracting the attention of medical men is that those in charge attempt and apparently are successful in dealing with a restricted number of functional nervous disorders. The method of treatment is by no means a new one and if possessing any characteristic at all is marked by its intimate connection with religion. It is as a matter of fact, a religious phase of psychotherapeutics and as such forms part of a rapidly increasing sense of the importance of psychotherapeutics in medicine. This is indicated, not only in the very numerous magazine articles dealing with the subject but by the number of the churches holding religious clinics and by the far more important fact that there is an increased activity in this regard in the universities. It has been reported that the University of Wisconsin has established a chair of psychology and medicine. Likewise the University of Pennsylvania is at the point of creating a similar chair made possible by the one-half

¹Paper read before the Pathological Club of the University of Nebraska College of Medicine, December 3, 1908.

million dollar Phipps fund. Lectures on the relations of medicine to religion are being given at Clark University by Professor G. Stanley Hall. It has been said that the new Phipps psychiatric clinic at the Johns Hopkins University will mark a new epoch in the study and treatment of nervous disorders the presumption being that psychotherapeutics will not be neglected. Tufts College has created a double course of lectures on religion and medicine by the Rev. Albert Shields and Dr. Morton Prince. Finally summer school courses in Emmanuelism are being given; the one at Emmanuel Church during the past summer having been attended by over 200 persons more than half of whom were physicians and ministers.

So great has been the spread of enthusiasm that as stated in the Outlook, "conservative people are beginning to refer to it as a 'craze,' and to tell the truth, there seems to be danger that the movement will get beyond the control of its originators and be adopted by those who have neither the temperament nor the training to carry it on successfully. In that case much damage is certain to be done, for it can not be too clearly understood that psychotherapeutics becomes an instrument potent for evil instead of good when its practitioners lack a thoro grounding in its principles. Still, whatever the future of Emmanuelism it has put to its credit even at this early stage certain achievements whereby it has well justified its existence. It has done more than any other single agency to familiarize the public with the essentially scientific nature of true psychotherapeutics, and it has galvanized the medical fraternity into taking action to meet a need which has never been more clearly shown than by the spontaneous inrush of patients to the Emmanuel clinics."

In the November number of the Ladies Home Journal in one of a series of five articles on Emmanuelism by Worcester it is stated that at least fifty earnest appeals for help are received daily. Altho they have a staff of ten persons not more than one out of five are able to obtain interviews. Worcester states: "It is difficult to see how we could have conducted our work on more conservative lines, or what greater deference we could have shown to scientific medical authority than we have shown. We have associated ourselves with able and conservative medical men from the beginning and we treat no case until it has been passed upon and diagnosed by good medical authority.

The character of the treatment is always indicated by the examining physician and the patient is reexamined by him at frequent intervals. We have confined our practice to the functional disorders, because we believe that this is the legitimate sphere of our work, which is of course, really psychotherapy. I know as well as another that it is not always possible to draw a fixed line of demarkation between the functional disorders and organic disease, but in practice a good diagnostician is seldom at a loss to detect the latter, and in doubtful cases we have excellent facilities of consultation not only with some of the ablest neurologists in this country, but also with other eminent specialists in the various branches of medicine and surgery."

Great stress is laid upon the fact that in Emmanuelism no attempt is made to take the place or usurp the power of physicians. "So far as our own personal work is concerned," says Worcester, "it is no attempt to unite the functions of the priest and the medicine man, it is a new form of specialization, the employment of special knowledge and experience for a special task. We are in this business not simply because we are priests, but also because our position and training enable us to render the people a very real service which the people need and want. If nervous sufferers, the mentally unbalanced, the unhappy, drunkards and victims of other destructive habits, would-be suicides and countless other miserable persons felt that there is no help for them in religion there would be no place for work like ours and we should have no motive to undertake it. But so long as such persons regard religious and moral help as their last refuge we shall continue to do what we can for them.

"This language, I am aware, will fall strangely on the ear of the purely scientific man, but it is the inability of men of this type to understand the cravings of the human heart which has caused the rise of our enormous healing cults, which with all their aberrations, have shown great shrewdness in recognizing the moral needs of our times and in meeting those needs. This great multitude is just as great a reproach to the medical profession as it is to the church, for these persons are lost to both. Nor would these cults have arisen had clergymen and physicians better understood and appreciated each others' functions and

had they been willing to unite in a service which neither seems able to perform alone."

Perhaps it may help to a clearer appreciation of the Emmanuel movement to relate the details of daily routine followed by the founders. Such a description is given in the December number of the *Ladies Home Journal*.

Dr. Worcester states: "I write this in the middle of the summer when our work has been reduced to its lowest terms. If I recall the persons who sought my advice yesterday it may serve as a slight indication of the variety of cases with which we have to deal. First came a prominent churchman, an able bishop, somewhat worn by his year's work and desirous of obtaining greater physical and spiritual power. A neurological examination showed that nothing was really wrong with this gentleman. A more nourishing diet and an outdoor life were recommended to him by a physician.

"I explained to him a better method of breathing. We had a pleasant conversation and he went away satisfied and encouraged.

"Then came a pianist suffering acutely from neuritis in her arms, brought on by too much playing and from a pain in her neck and the back of her head, which is a frequent symptom of neurasthenia. I advised her to take a vacation and to give up practicing for the present. Then I relaxed her and caused her pains to cease temporarily thru suggestion.

"My next visitor was a college professor, a hard student, who who had injured his eyes from overstudy, and who had suffered much from nervous apprehensions and insomnia. I referred him, of course to an oculist and then I tried to show him how he could do his work with less friction and effort, and to teach him the art of natural sleep. With the majority of persons who, tho free from disease or pain are not good sleepers, sleep is largely a matter of suggestion. I mean by that it is our thoughts which keep us awake and if we can learn to inhibit exciting, disturbing, interesting thoughts and allow soothing images to flit before our minds, sleep will quickly follow. In all the forts and military stations of the United States at sunset a gun is fired and the flag is hauled down as an indication that the business of the day is over. That is a lesson which busy men and women need to learn, namely to dismiss the cares and perplexities of the day, at all events, a little while before going to bed. The gentleman

I refer to had not learned this lesson. He told me he usually spent the first hour in bed in reviewing the work he had done during the day and in planning more work, in consequence of which he slept but little and he frequently awoke much exhausted. This is a common habit, the source of unending vexation and wretchedness which are only aggravated by the use of sedatives. If its victims instead of flying for relief to chloral and the coal-tar products would only exercise a little intelligence and will power in controlling their thoughts they would have no need of drugs.

"Following the professor came a woman from the neighboring city of Chelsea, one of the many victims of the cruel fire which desolated that city last spring. She had lost her home, her fine colonial furniture in short all that at present seems to her to make life worth living. She was also somewhat unstrung by the excitement she had undergone, but was otherwise perfectly well. What she wanted was sympathy and friendly advice in regard to the future, such as any sensible clergyman would give to his parishioner.

"Then came a young stenographer, pale, anemic, thoroly tired out, but suffering from no disease. A month at the shore, with rest, fresh air and sea-bathing, would probably set her up. It was proposed and declared to be impossible, as the means were lacking. I hold a fund, placed in my hands by the members of our health classes, for just such cases. I wrote a check and she went on her way rejoicing.

"While talking with this last woman I was called up on the telephone by a pair of lovers in a distant part of the state. They had had a serious misunderstanding and their happiness was jeopardized, but if they could come to Boston and talk it over all might yet be well. They came and all they appeared to need was a comfortable room to talk in, for they did all the talking themselves, and went away apparently utterly reconciled.

"The next case was a sad one. a girl suffering from articular arthritis. The large deposits on her joints which constantly threaten locomotion and movement, press upon sensitive nerves and cause her exquisite pain. One day it is her hands that are most painful, the next her ankles, her neck or her hips. I am treating her, of course, in conjunction with a medical specialist. He sends her to me in the hope of improving her mental and moral condition, which he believes has much to do with the

progress of the disease. I believe this, yet I know it is not easy to be bright and courageous when by night and day one is never free from severe pain. Altho pains like these can not be thoroly removed by suggestion, yet if you or I were suffering so we should doubtless be grateful for even a temporary respite and it is always a pleasure to me to see her expression of pain yield to one of deep peace, and in answer to my question, "Do you suffer at all?" I get the reply, "No, I am quite comfortable." So often I leave her resting in the big chair and go on with my work for an hour as that is about the only place where she can rest. Lastly there appeared a very intelligent Armenian to thank me for his wife's recovery from alcoholism. She had been treated during the winter and thus far has stood firm."

In this same article are given a list of the cases treated during the past year:

Forty-four, alcoholism; 13, arterio-sclerosis; 3, constipation; 11, dementia precox; 53, depression; 7, dipsomania; 16, fear neurosis; 2, fixed ideas; 8, exophthalmic goiter; 23, hysteria; 2, hemiplegia; 9, hypochondria; 1, hypnagogic states; 33, insomnia; 14, indigestion; 7, kidney affection; 10, locomotor ataxia; 7, migraine; 35, manic depressive insanity; 7, morphinism; 189, neurasthenia; 19, chronic neurasthenia; 16, neurasthenia with depression; 5, congenital neuropath; 18, unclassified insane; 1, occupation neurosis; 1, osteo-arthritis; 1, articular arthritis; 1, paranoea; 1, polio-myelitis anterior; 38, psychasthenia; 5, senility; 106, unclassified; 1, lateral sclerosis; 9, tumor; 39, reserved. Total 661.

In order to convey a more vivid idea of the method of treatment I shall take the liberty of modifying an account given in December number of the American magazine.

"A tall, rather fine looking man, Mr. X, came into the rector's study. He did not look at all ill but I learned that he had been under treatment for several months. His story was a familiar one. He had come a stranger to the city with his family, he had been under a great strain, he was without acquaintances, and he had begun to use stimulants until he found himself unable to throw off the habit. As a final resort he sought out the rector.

" 'If you really want to be cured I can cure you,' said the rector.

" 'I want to be cured,' said Mr. X.

"The treatment began then and there, and Mr. X reports that he has not since taken a drink. He has, moreover, become a steady attendant with his family at the church. He is a wholly different man. On the night I was there the rector gave him treatment. The man sat comfortably in an easy chair, the light was turned down, the study was silent and peaceful. The rector stood behind the chair and told Mr. X to compose himself, that he was going to sleep just as he had gone to sleep before when he had come to the study. 'You are going to sleep' said the rector, 'you are sinking deeper into sleep. No noises will disturb you. You will drop off into sleep, you are asleep. I told you before that you were not to drink any more. I told you that you could not yield again to the drink habit. You can not drink any more. You will go on now into the perfection of freedom. Your whole physical nature will revolt at the thought of alcohol. If you should take to drink again it would blast your life and leave your wife and children without support; it would cost you your position. You are too good a man to drink. In God's name I command you therefore not to drink any more. You can not drink any more. You will use every means to keep from drink; you will not be able to drink any more.'

"These suggestions were repeated in different forms many times in a low monotone, the treatment lasting about 10 to 15 minutes."

It may be judged from the above that the essential character of the treatment in Emmanuelism is one of suggestion. The founders of the movement deny the allegation which has been made that their method of treatment is no more or less than hypnotism. Patients, they say are not hypnotized. They are put at ease mentally and bodily, or relaxed and in this condition it is claimed they are most open to any suggestions made to them. It is useless to deny this claim but it must occur to all who have the slightest acquaintance with the lighter stages of hypnotic trances how vague and indefinite is the transition from the normal to a light hypnotism. Subjects having been in the latter condition often refuse to believe that they, in any way, have been in a state of hypnotism, they remember perfectly what has taken place and explain unusual acts as a desire on their part to please the operator and will not believe but that they might have done otherwise if they had so pleased.

But whether or not patients under Emmanuel treatment are hypnotized it is highly desirable that they have faith in the treatment and that they willingly cooperate to bring about the desired result. It will be remembered that in hypnotic treatment these conditions are also highly desirable and it seems that in such mental states suggestions are more potent, further reaching and more lasting. The effectiveness of suggestion becomes therefore, more striking. It has been found possible to affect the functions of organs ordinarily considered beyond the control of the will. Since voluntary impulses have their origin in the cerebral cortex the question might be raised as to the experimental evidence on record showing that organs not under voluntary control may nevertheless be influenced by stimulation of more or less definite regions of the cortex. If such regions or areas can be demonstrated to exist then much of the mysterious nature of the phenomena of involuntary functions responding or being affected by mental states will disappear.

To the ordinary medical mind consciousness seems inseparably connected with that complex, organized living structure known as the central nervous system and moreover seems particularly associated with that portion of the central nervous system which we call the cerebral cortex. To such a mind the central nervous system altho extremely complicated in its structure is, nevertheless, essentially a mass of neurones connecting with one another in definite ways. This structure is irritable and can be excited by disturbances which come to it along afferent nerve fibers or by substances carried to it by the blood. These disturbances do not affect all portions of the nervous system to the same extent but as nerve impulses follow definite paths or tracts which are more intensely excited than other portions lying outside of these paths and these disturbances moreover tend to pass ultimately out of the central nervous system and produce some reaction upon the external world. The simplest conceivable paths are those concerned in the simple reflex actions. Such a path may involve no more than two neurones i. e., there are two neurones as links in the chain which forms the reflex path. An indefinite number of such chains lie parallel to one another and all are or may be active during the reflex action. However complex the structure of the central nervous system may become in passing towards the cerebrum or however com-

plex it may become in passing from animals low in the scale of life to those standing high the essential plan of structure is always the same. There are connected, end to end, series of nerve cells, which when the cerebral cortex is involved are of great and unknown number. In comparing a section of the central nervous system of an animal like the mouse with one taken from man the most striking difference lies not in the differences in number of nerve cells per unit volume but in the extraordinary amount of intercellular space in the brain of man indicating that the possibilities of different connections in man's brain are much greater than in the brain of the mouse.

Whether considered phylogenetically or ontogenetically somewhere in this growing complexity of nerve structure there enters a new function, that of consciousness. Whether animals are possessed of consciousness, we do not know. By inference, it is believed that some animals are merely automata or reflex machines. Some are inclined to credit the dog with some degree of consciousness while in ourselves we recognize our own consciousness but can only infer as to what our neighbor's consciousness is like. Just what consciousness is physiologically, how great storms of nerve impulses can become conscious processes we do not know.

There is experimental evidence that a reflex thru the spinal cord of man may take place without involving consciousness. A patient with a lesion in the dorsal region of the cord drew up his foot upon tickling the sole without his knowledge and without effort and later upon seeing the foot draw up he was surprised and laughed to see it respond.

By almost universal consent conscious processes are placed in the cortex of the cerebrum. Whatever affects the cortex affects consciousness. Drugs, lesions, ablations, tumors, pathological alterations, stimulations, etc., are all capable of throwing out of gear mental processes. Cortical stimulation and the phenomena of aphasia and of hypnotism give startling proof of the machine-like basis upon which consciousness is dependent. But during any particular state of consciousness not all portions of the brain are equally active. Certain areas are more completely involved than others, otherwise we would have no separation of the brain surface into visual, auditory, body-sense

and motor areas and no separation of these from association areas.

In this view that in any particular mental state certain regions of the cortex are preeminently active and that all other regions or most other regions are partially or totally inactive we have a means of understanding why thought is possible and why it consists of a concentration more or less on few things at a time. If all portions of the brain were equally active and all thoughts were being expressed at one time there would result pandemonium or whatever else one may choose to call such confusion. It is the inhibition of large powers of the cortex and concentration upon few powers that gives a physical conception of such phenomena as dissociated personality or multiple personalities. It seems extremely improbable that in the innumerable reflex paths always growing in complexity there should be a sudden jump into consciousness. It seems much more probable that increasing intricacy of structure should go hand in hand with increasing complexity of consciousness, that at some stage, as perhaps in animals now, consciousness is but a vague and fleeting phenomenon, not at all approaching a reasoning process or a perceptual or a conceptional process. Such a condition of mind can be appreciated by recalling the vagueness of hunger and thirst sensations or such states of mind as the "blues."

State of consciousness can be roughly arranged in a series with such vague indefinite feelings as hunger and thirst at one end of the series and purely intellectual processes of the mind at the other. Between these extremes we may place our numerous emotions. Not that one state ever passes or develops into the other but each involves its own reflex paths in the central nervous system and that some of these appear during the development of an organism at an earlier period than others. The assumption is made that such vague feelings as hunger and thirst and sexual feeling and the emotions are the more primitive and appear before the purely intellectual mind processes. Emotional states of mind involve their own reflex paths but like all other regions of the central nervous system can be influenced and affected by purely reflex processes and by those processes which accompany intellectual activities of the mind. It is a remarkable fact, but upon our point of view perfectly natural, that when the activity of the processes accompanying

intellectual acts is inhibited that then nervous impulses impinging upon the central nervous system affect primarily those reflex paths whose activity is accompanied by emotional or more primitive mind states. These conditions are illustrated by hypnotism or when thru the absolute faith if one individual in another the second makes effective suggestions to the first without clearly affecting his consciousness. There exists at the present day a very large amount of evidence, experimental evidence, that impulses arising in the cortex may affect various abdominal organs or structures usually considered outside of the power of the will. Clinical evidence on this point is overwhelming. Psychological evidence is growing by leaps and bounds. Take for instance the following example, related by Worcester:

"About 15 years ago while I was living in Bethlehem, Pennsylvania, I saw the most wonderful example of heroic effort to heal the sick by the power of faith which I ever expect to witness. Two clever charlatans, large, bold, and oily-tongued men suddenly appeared in the community and announced that they were prepared to cure every form of disease on the spot. The opera house which had been rented for the purpose, presented a strange and sad appearance. The place was thronged with sick folk suffering from the most diverse maladies, some of them were old and incurably ill, some were blind, some partially paralyzed, some crippled with rheumatism and arthritis; many were brought forward to the stage, little discrimination apparently being employed in the selection of cases. The treatment consisted in the bold and reckless assertion, "You say that you can not see but I tell you you can see. You see me now. Isn't that true?" And the answer generally was "Yes, I do." The bed-ridden were roughly pulled out of their beds and were told they could walk and they did walk. The bowed were straightened, and soon they were running, dancing, singing. An indescribable sense of excitement seized us all, which, doubtless powerfully reenforced the suggestions of the two quacks. In company with Bisop Rulison and a Bethlehem physician I sat on the stage only a few feet from the operators and carefully recorded the names of the persons treated, many of whom we knew and whose cases were genuine. Among others was a woman suffering from a large goiter. Spying her the healer declared that he would cause

the goiter to disappear in precisely three minutes and having passed his hand rapidly over her head a few times he began a series of violent compressions and manipulations. A shuddering groan broke from the lips of the spectators, but in answer to his inquiry the woman assured us that she felt no pain. Sure enough, the goiter disappeared before our eyes. At the end of one minute it was perceptibly smaller and at the end of three minutes it was barely visible. For the next two weeks the physician I have mentioned and I continued to visit the patients but in a few days they had all relapsed to their former condition except the woman who had had the goiter. She almost lost her life in consequence of the outrageous treatment."

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EDITORIAL

Obituary

On November 28th, 1908 Dr. Geo. H. Bicknell, Associate Professor of Ophthalmology and Otology in the University of Nebraska, died at the Methodist hospital in Omaha. He had been sick since the preceding spring with an obscure bowel trouble, which at times simulated appendicitis, but which the post mortem showed to have been a chronic ulceration of the sigmoid flexure which had led to abscesses in the peritoneal cavity and finally to septic pneumonia.

Dr. Bicknell was born in Rossville, Ill., in 1864. His circumstances obliged him to leave the high school before he had finished the course. Having a decided bent toward music he supported himself by directing music at various institutions until he began the study of medicine at the Northwestern University in 1892. His medical education was finished at the Omaha Medical College in 1895. After a brief period of hospital

work he took up the study of the eye, ear, nose and throat, and devoted himself to this specialty until his death.

Dr. Bicknell came as as near being the ideal physician as any man the writer has been privileged to meet. Alert, dignified, composed, and kind, his manner toward his patients and his colleagues was perfect. Altho to a large extent self-educated he never lost the desire and capacity for work and study, and while his scientific papers were not numerous, they showed great care and thoroness in their preparation. Altho in no sense a pusher for recognition, he left a large circle of devoted friends, patients and colleagues. All thru his lingering and painful illness he displayed remarkable fortitude and cheerfulness, and in his last words he displayed the consideration for others which was one of his most striking characters. Speaking to the nurse a short time before his final coma came on he said: "You go to sleep now, I will be all right."

With his death the University and the profession has suffered an irreparable loss. G.

In Memoriam

At the annual meeting of the Omaha-Douglas County Medical Society the following resolutions in memory of Dr. George H. Bicknell were read and adopted.

Resolved, That by the death of Dr. George H. Bicknell, whose reputation as a physician and as a man was without a flaw, the Omaha-Douglas County Medical Society has suffered a great and irreparable loss.

Resolved, That the sympathy of the society be extended to the wife and family of the deceased, and that a copy of these resolutions be spread on the minutes of the Society.

J. E. SUMMERS,
H. GIFFORD,
Committee.

COLLEGE NOTES

DR. JNO. F. ALLEN, '07, is at present in Cheyenne, Wyo.

A son was born to Mr. and Mrs. J. H. Sayer December 12th, 1908.

DR. AND MRS. A. F. JONAS are receiving congratulations upon the arrival of a son.

DR. F. H. MORROW, who has been practicing in Scottsbluff, has removed to Columbus, Nebr.

DR. J. F. PREMER, '08, of Bartley, Nebraska, has purchased the practice of Dr. Jeffers of Haigler, Nebraska.

DR. A. P. FITZSIMMONS of Tecumseh, Nebr., has been appointed surgeon general on Governor Shallenberger's staff.

DR. G. W. SULLIVAN of Kimball, Nebraska, has removed to St. Edwards, Nebraska, and permanently located in that town.

DR. B. F. JEFFERS, '05, of Haigler, Nebr., and Dr. W. H. Henney, '08, of Thedford, Nebr., visited the College recently.

DR. B. B. DAVIS AND DR. A. C. STOKES of the Omaha Faculty attended the Western Surgical and Gynecological Association meeting in St. Paul December 29-30.

DR. JAMES WOODARD of Aurora, Nebraska, was married December 3 to Miss Mabel Biggs of Albany, Missouri, in Omaha. They will make their home in Aurora.

DR. I. D. JONES, class of 1895, of Murdock, Nebraska, has found it necessary to discontinue his work on account of ill health. He has gone south for the winter.

At the annual meeting and dinner of the Omaha Douglas County Medical Society on January 12, 1909, Dr. Ewing Brown was elected president and Dr. J. M. Aikin vice-president.

PROFESSOR R. H. WOLCOTT represented Nebraska at the annual meeting of the National inter-collegiate athletic association held in New York City during the Christmas holidays.

The commencement orator this year will be Dr. W. W. Keen of Philadelphia. Dr. Keen expects to visit the University in Lincoln on his trip and speak before the medical students.

DR. H. F. FORT, '88, of Wood Lake, Nebraska, was recently in Omaha, being absent from home upon a vacation. He had not visited the college during the twenty years since he was graduated.

DR. C. W. POLLARD, adjunct professor of obstetrics, has been appointed as the official delegate of the University of Nebraska College of Medicine at the meeting of the American Academy of Medicine which is to be held in Chicago, on March 25.

For several years the College has been seeking to have its facilities and work evaluated by the highest authorities in medical education. Just as it sought originally the advice of such in planning and organizing its work, so now after the lapse of several years' experience it has been anxious to secure judgment of equal rank with regard to the success achieved. With this end in view every effort has been made to open its entire plant freely to inspection

of examining bodies. It is gratifying to record that one of the most rigorous and conservative of such examining bodies has recently given the following verdict at the close of a long discussion concerning our institution and its work:

“Examining Board in England by the Royal College of
Physicians and the Royal College of Surgeons,
Examination Hall, Victoria Embankment,
London, W. C., November 6, 1908.

DEAR SIR: I have now the pleasure to inform you that the Royal Colleges of Physicians and Surgeons have added the University of Nebraska to the list of those Institutions recognized by this Board at which the curriculum of profession study may be pursued and whose Graduates in Medicine may be admitted to the Final Examination in Medicine, Surgery, and Midwifery, on production of the required certificates of study.

I am, Dear Sir,
Yours faithfully,
(Signed) FREDERIC G. HALLETT, Secretary.”

This action on the part of so eminent an influence in the medical world is a source of great gratification to the faculty who have striven so hard to set high standards and to the students who have responded so strongly to the stimulus for higher things. The action will have the practical advantage of establishing the institution firmly in the minds of those at a distance and consequently enable them to determine for themselves its work and worth. It will also be of especial value to such students as plan to take up work in foreign lands as medical missionaries. They will find thru this an advantageous introduction to their associates on the mission field and to the public in that region and they will also be enabled hereby to meet satisfactorily official limitations without undue waste of time and effort.

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